

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P273734

Luminaire Tested: **8RCG-4-56D-L830-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P273734  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8RCG-4-56D-L830-A  
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS  
Light Source: (168) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

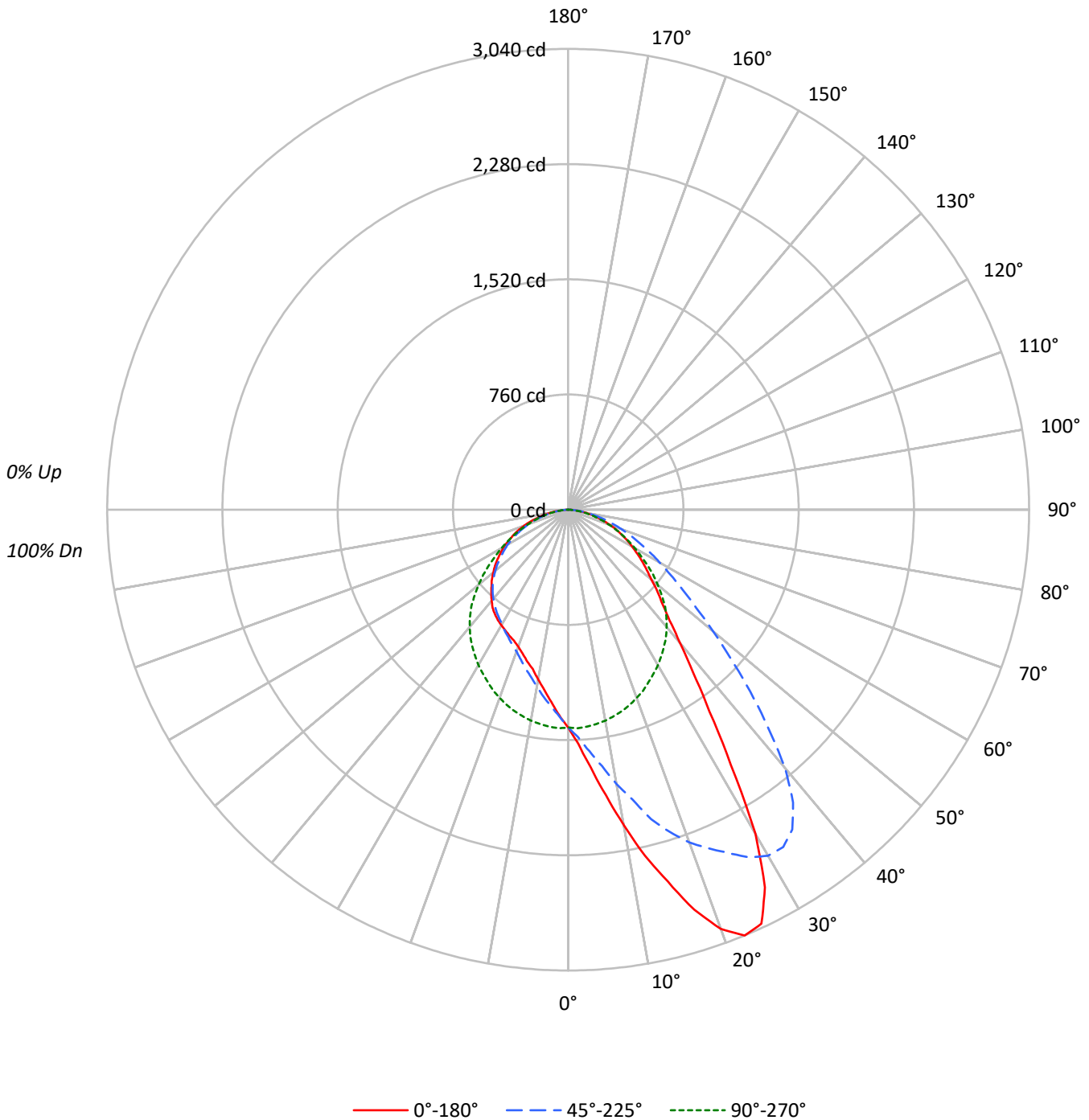
Lumens per Lamp: N/A  
Luminaire Lumens: 4334.2 lumens  
Efficiency: N/A  
Efficacy: 116.5 lumens/watt  
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5  
Luminous Opening: Rectangular (W 7.88' x L: 0.23' x H: 0')  
CIE Type: Direct

Input Watts (W): 37.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	53					53			
5	78	66	57	51	76	64	56	50	62	55	50	60	54	49	59	53	49	47					47			
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	41					41			
7	67	54	45	39	65	53	45	39	52	44	39	50	44	39	49	43	38	36					36			
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	35	33					33			
9	58	45	37	32	57	45	37	32	43	36	32	42	36	31	41	36	31	29					29			
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27					27			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	8565	8565	8565
5°	10214	8601	7623
10°	12784	8558	6885
15°	15680	8489	6409
20°	18680	8381	6102
25°	19834	8250	6035
30°	17000	8156	6066
35°	11823	8020	6129
40°	8906	7859	6110
45°	7394	7624	6033
50°	6623	7139	5978
55°	6193	6620	5904
60°	5809	6074	5843
65°	5459	5538	5656
70°	5120	4925	5389
75°	4586	4314	4936
80°	4012	3538	4252
85°	3148	2573	2861



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.2	3.3
10°-20°	453.6	10.5
20°-30°	763.2	17.6
30°-40°	862.6	19.9
40°-50°	772.6	17.8
50°-60°	623.6	14.4
60°-70°	434.5	10.0
70°-80°	228.1	5.3
80°-90°	54.7	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1358.1	31.3
0°-40°	2220.6	51.2
0°-60°	3616.9	83.5
0°-90°	4334.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4334.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1436	1436	1436	1436	1436	
5°	1706	1599	1437	1301	1273	175
15°	2539	2114	1375	1084	1038	733
25°	3014	2498	1254	932	917	1332
35°	1624	2576	1101	823	842	1048
45°	877	1698	904	704	715	691
55°	596	922	637	544	568	534
65°	387	517	392	369	401	385
75°	199	245	187	186	214	213
85°	46	53	38	37	42	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0
2.5°	1545.8	1544.6	1541.0	1543.8	1538.2	1530.6	1529.8	1523.0	1502.8	1501.4	1495.8
5°	1706.0	1700.4	1699.6	1699.0	1689.2	1676.0	1651.0	1648.8	1615.4	1598.8	1578.6
7.5°	1899.4	1897.2	1891.6	1885.4	1852.8	1836.8	1813.0	1782.4	1743.4	1706.0	1682.2
10°	2110.8	2133.8	2105.2	2085.8	2067.6	2033.6	1994.0	1944.6	1895.2	1837.4	1793.6
12.5°	2337.6	2346.0	2346.0	2327.8	2297.2	2241.0	2163.0	2107.4	2062.8	1957.0	1919.4
15°	2539.4	2581.8	2554.6	2492.0	2493.4	2444.0	2352.2	2251.4	2197.8	2113.6	1998.8
17.5°	2767.6	2775.2	2766.8	2708.4	2680.0	2608.2	2525.4	2431.6	2330.6	2228.4	2109.4
20°	2943.0	2938.8	2914.4	2887.2	2827.4	2774.6	2682.0	2574.2	2435.0	2334.8	2202.0
22.5°	3040.4	3032.6	3024.4	3002.8	2955.4	2897.6	2817.0	2696.6	2565.8	2418.4	2259.8
25°	3013.8	3023.0	3024.4	3018.0	3000.6	2966.6	2901.2	2807.2	2675.0	2497.6	2337.6
27.5°	2809.4	2832.2	2861.6	2881.0	2912.2	2933.2	2912.2	2853.2	2744.6	2586.0	2389.2
30°	2468.4	2440.6	2509.4	2596.4	2655.6	2760.0	2818.4	2821.8	2766.8	2635.4	2444.8
32.5°	1995.4	2040.6	2061.4	2173.4	2320.2	2440.6	2571.4	2687.6	2714.8	2638.2	2477.4
35°	1623.8	1662.0	1717.8	1773.4	1912.6	2032.2	2236.8	2414.8	2556.8	2575.6	2473.2
37.5°	1349.8	1372.0	1406.0	1465.2	1560.6	1708.6	1870.8	2102.4	2298.0	2435.8	2421.8
40°	1143.8	1149.4	1189.0	1231.4	1305.2	1422.0	1564.6	1763.6	2010.0	2223.6	2312.6
42.5°	989.4	1003.2	1014.4	1054.8	1109.6	1190.4	1320.4	1476.4	1696.8	1950.8	2146.4
45°	876.6	890.6	901.0	928.0	969.8	1029.0	1121.6	1271.8	1443.6	1697.6	1932.0
47.5°	798.6	797.2	806.4	828.0	857.8	905.2	973.4	1073.4	1238.4	1450.6	1696.2
50°	713.8	725.0	727.8	743.8	766.0	798.6	853.0	935.0	1064.4	1245.4	1466.6
52.5°	654.0	655.4	664.4	674.8	693.6	717.2	762.6	822.4	917.0	1064.4	1263.4
55°	595.6	595.6	603.2	612.2	623.4	646.4	677.6	725.0	802.2	921.8	1090.2
57.5°	541.2	544.0	551.0	553.0	562.8	578.8	606.0	643.6	702.6	799.4	938.6
60°	487.0	493.2	492.6	498.2	506.4	518.4	540.6	569.8	621.2	695.0	807.8
62.5°	439.6	437.6	437.6	444.6	453.0	464.0	476.6	501.0	542.6	606.0	697.8
65°	386.8	385.4	390.2	394.4	397.2	405.6	416.8	439.0	468.2	517.0	591.4
67.5°	341.0	336.8	340.2	341.6	346.4	353.4	364.6	378.4	402.2	443.2	503.0
70°	293.6	290.2	289.4	290.8	295.0	299.8	307.6	320.8	342.2	373.6	414.6
72.5°	244.8	242.8	242.8	246.2	247.6	250.4	255.4	267.2	283.2	304.8	342.2
75°	199.0	199.0	199.0	199.6	201.8	204.6	208.8	215.0	228.2	244.8	270.6
77.5°	157.2	158.0	156.6	155.8	159.4	160.8	161.4	168.4	176.0	188.6	208.8
80°	116.8	113.4	114.8	116.8	118.2	119.0	121.0	122.4	128.8	135.0	148.2
82.5°	79.4	76.6	76.6	80.0	80.0	80.8	82.8	84.8	86.2	91.8	97.4
85°	46.0	46.0	46.6	46.6	47.4	46.6	48.8	49.4	49.4	52.8	57.0
87.5°	20.8	19.4	20.2	20.8	20.2	20.8	21.6	22.2	23.0	23.6	24.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0
2.5°	1491.6	1486.0	1480.4	1470.8	1462.4	1450.6	1447.2	1443.0	1430.4	1419.2	1411.0
5°	1571.0	1554.2	1529.8	1507.6	1489.6	1465.2	1451.2	1436.6	1415.8	1397.0	1381.8
7.5°	1646.8	1617.6	1583.4	1546.6	1511.2	1477.0	1449.8	1425.6	1398.4	1372.0	1351.8
10°	1740.6	1693.4	1640.6	1583.4	1534.8	1487.4	1447.8	1413.0	1375.4	1342.8	1315.6
12.5°	1847.8	1772.0	1694.0	1621.8	1561.8	1491.6	1441.6	1395.0	1351.0	1310.0	1278.8
15°	1927.8	1838.8	1752.6	1657.2	1569.6	1487.4	1430.4	1374.8	1325.4	1285.0	1246.0
17.5°	2007.2	1909.8	1799.8	1685.0	1582.0	1487.4	1409.6	1349.8	1289.2	1240.4	1203.0
20°	2072.6	1957.8	1829.0	1708.6	1591.8	1483.2	1395.6	1320.4	1253.6	1201.6	1157.6
22.5°	2129.0	1989.8	1855.4	1724.6	1591.2	1472.2	1369.8	1292.0	1218.2	1167.4	1120.2
25°	2164.4	2003.6	1870.2	1719.2	1573.8	1452.6	1341.4	1253.6	1181.4	1121.6	1073.4
27.5°	2197.8	2001.6	1850.6	1687.8	1552.8	1432.4	1312.8	1219.0	1143.0	1078.4	1029.0
30°	2231.2	2005.0	1816.6	1655.8	1519.4	1394.2	1278.8	1184.2	1103.4	1037.4	991.4
32.5°	2252.0	2003.0	1785.2	1611.2	1466.6	1359.4	1241.8	1143.0	1059.6	994.8	951.0
35°	2257.6	1991.2	1748.4	1546.6	1408.8	1301.0	1203.0	1101.4	1014.4	953.8	903.8
37.5°	2245.8	1969.6	1708.0	1488.2	1339.2	1232.2	1146.6	1059.6	976.0	908.6	864.8
40°	2207.6	1948.8	1659.2	1425.6	1267.0	1164.6	1094.4	1009.4	927.4	864.0	823.8
42.5°	2134.4	1906.2	1605.8	1356.0	1191.8	1089.6	1026.2	958.8	882.2	823.8	783.4
45°	2006.4	1840.8	1552.2	1286.4	1118.0	1012.2	955.2	903.8	833.4	775.8	741.0
47.5°	1843.0	1752.6	1475.0	1213.4	1040.8	938.6	878.6	836.2	781.2	734.6	700.6
50°	1671.2	1638.4	1396.4	1138.2	963.6	864.0	807.0	769.4	732.6	686.0	655.4
52.5°	1472.8	1506.2	1304.4	1060.2	885.0	787.6	734.6	706.8	674.2	638.0	612.2
55°	1289.2	1362.2	1196.0	971.2	807.0	713.8	663.0	636.6	617.2	588.6	565.6
57.5°	1111.0	1204.2	1083.2	881.4	730.6	649.2	599.0	569.2	556.6	540.6	521.8
60°	956.0	1047.8	960.8	791.0	653.2	576.8	533.6	509.2	496.8	486.4	471.0
62.5°	817.4	910.6	841.2	699.2	577.4	507.8	471.6	448.0	439.0	434.8	422.4
65°	693.0	773.0	724.2	603.2	505.8	443.2	409.0	392.4	383.4	381.2	373.0
67.5°	585.2	647.0	609.4	518.4	439.0	382.0	352.0	337.4	329.8	329.0	322.2
70°	479.4	536.4	509.2	428.6	362.4	320.0	295.0	282.4	278.2	277.6	274.2
72.5°	397.2	432.8	412.6	348.6	301.2	263.6	247.0	233.8	228.8	230.2	228.2
75°	306.2	336.0	323.6	276.8	235.8	210.8	195.4	187.2	183.0	185.0	182.2
77.5°	233.8	254.6	242.2	206.6	180.2	161.4	149.6	144.0	139.8	139.8	138.4
80°	166.2	177.4	171.2	151.6	130.8	115.4	106.4	103.0	100.8	100.2	99.4
82.5°	106.4	115.4	107.8	96.0	83.4	75.8	71.6	66.8	65.4	66.0	65.4
85°	59.8	63.4	60.6	52.2	46.6	42.4	39.6	37.6	36.2	36.8	35.4
87.5°	25.8	26.4	24.4	21.6	20.2	18.0	18.0	16.6	15.4	15.4	14.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0	1436.0
2.5°	1406.0	1401.2	1394.2	1383.8	1375.4	1362.2	1362.2	1364.4	1364.4	1363.6	1362.2
5°	1369.2	1358.8	1346.2	1331.6	1316.4	1301.0	1298.2	1292.6	1288.4	1285.6	1282.2
7.5°	1331.6	1314.2	1296.8	1276.6	1259.2	1244.6	1234.2	1225.2	1219.6	1213.4	1208.4
10°	1293.4	1270.4	1248.8	1227.2	1203.6	1184.8	1173.0	1164.6	1158.4	1152.8	1150.0
12.5°	1248.2	1221.0	1196.6	1176.4	1150.0	1130.6	1119.4	1116.6	1109.0	1095.8	1088.8
15°	1204.2	1180.0	1151.4	1120.2	1107.6	1084.0	1070.8	1064.4	1060.2	1051.2	1048.4
17.5°	1168.2	1135.4	1102.8	1079.8	1056.8	1038.0	1030.4	1022.0	1016.4	1008.2	1006.0
20°	1122.8	1094.4	1065.2	1040.2	1015.8	994.8	988.6	983.0	977.4	974.0	971.2
22.5°	1077.0	1048.4	1025.4	1002.6	976.0	964.2	957.4	951.0	947.6	945.4	942.8
25°	1034.6	1009.4	982.4	961.4	940.6	931.6	927.4	924.0	921.2	917.6	917.0
27.5°	997.0	969.2	946.2	926.0	910.6	903.0	898.2	896.0	896.0	897.4	898.2
30°	953.8	928.8	910.6	894.0	880.0	873.2	872.4	872.4	875.2	876.0	877.4
32.5°	914.2	894.6	876.6	860.6	850.8	846.6	850.2	850.2	852.2	854.4	857.2
35°	876.0	857.8	844.0	830.0	821.0	823.0	824.4	825.8	829.4	833.4	836.2
37.5°	839.8	823.0	808.4	797.2	791.8	796.0	799.4	802.2	806.4	809.8	812.6
40°	800.0	788.2	774.4	764.6	766.0	768.0	770.8	774.4	777.8	780.0	782.6
42.5°	763.2	750.6	741.0	733.2	735.4	738.2	739.6	741.0	745.2	749.2	750.6
45°	725.6	715.8	706.2	701.2	702.6	704.0	705.4	707.6	711.0	713.8	714.6
47.5°	683.2	676.2	670.0	664.4	667.2	666.6	668.6	672.8	674.2	675.6	679.8
50°	642.8	636.6	629.0	627.6	627.6	627.6	628.2	633.8	633.8	636.6	639.4
52.5°	598.4	594.8	590.6	587.8	586.4	586.4	590.0	592.0	593.4	597.6	600.4
55°	554.4	550.4	546.2	544.0	542.6	544.0	549.6	551.0	554.4	556.6	558.6
57.5°	508.6	505.8	502.4	501.0	501.0	501.6	505.8	509.2	510.0	517.0	519.8
60°	463.4	458.4	455.6	455.6	454.4	460.6	459.2	466.2	467.6	471.6	476.6
62.5°	416.8	409.8	409.0	409.0	411.8	412.6	415.4	417.4	421.6	427.2	430.6
65°	366.0	362.4	367.4	366.6	365.2	369.4	369.4	373.0	377.0	382.0	389.6
67.5°	318.6	315.8	317.2	316.6	318.6	321.4	323.6	326.2	331.2	336.8	341.6
70°	270.6	272.8	269.2	272.0	274.2	274.8	276.2	280.4	286.0	289.4	295.0
72.5°	224.0	223.4	224.8	225.4	227.6	228.8	230.2	235.2	241.4	244.2	248.4
75°	179.4	178.8	180.8	180.8	184.4	185.8	187.2	189.2	194.8	199.0	202.4
77.5°	139.2	139.8	139.2	142.0	140.6	141.2	145.4	147.4	148.2	157.2	158.6
80°	98.8	100.2	100.8	101.6	102.2	100.8	105.8	107.8	107.8	112.8	116.2
82.5°	64.0	64.8	66.8	67.4	67.4	69.6	68.8	70.2	72.4	73.8	78.6
85°	35.4	37.6	38.2	37.6	38.2	36.8	39.0	39.6	40.4	40.4	40.4
87.5°	14.0	14.6	14.0	14.6	14.0	14.6	14.6	13.2	13.2	15.4	12.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P273734

CATALOG NUMBER: 8RCG-4-56D-L830-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1436.0	1436.0	1436.0	1436.0
2.5°	1357.4	1356.6	1361.6	1358.0
5°	1278.0	1280.2	1273.2	1273.2
7.5°	1206.4	1203.6	1204.2	1199.4
10°	1141.6	1137.6	1136.2	1136.8
12.5°	1088.2	1088.2	1077.0	1077.0
15°	1048.4	1035.2	1033.8	1038.0
17.5°	1004.6	997.0	997.6	996.2
20°	971.2	967.0	966.4	961.4
22.5°	940.6	940.0	940.6	935.0
25°	916.2	919.8	917.0	917.0
27.5°	899.6	899.6	897.4	897.4
30°	880.0	879.4	880.8	880.8
32.5°	860.6	862.0	862.0	862.6
35°	840.4	841.2	843.2	841.8
37.5°	814.0	817.4	816.8	818.2
40°	783.4	785.4	784.8	784.8
42.5°	752.0	753.4	751.4	750.0
45°	717.2	715.8	718.0	715.2
47.5°	679.0	679.8	680.4	683.2
50°	640.8	645.0	645.0	644.2
52.5°	603.2	604.6	608.0	608.0
55°	564.2	565.6	567.0	567.8
57.5°	524.6	523.8	526.6	527.4
60°	482.2	482.2	487.8	489.8
62.5°	437.0	439.6	445.2	441.0
65°	393.0	398.6	398.0	400.8
67.5°	347.2	350.6	356.2	356.2
70°	300.6	304.0	306.8	309.0
72.5°	255.4	256.8	264.4	260.2
75°	207.4	212.2	216.4	214.2
77.5°	161.4	167.6	169.0	167.0
80°	121.0	120.4	124.6	123.8
82.5°	80.8	80.0	81.4	82.0
85°	43.2	45.2	42.4	41.8
87.5°	12.6	12.6	11.8	11.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)